

MONTHLY NOTICES

OF THE

ROYAL ASTRONOMICAL SOCIETY.

VOL. XXXVIII.

APRIL 12, 1878.

No. 6.

LORD LINDSAY, M.P., President, in the Chair.

M. Camille Flammarion, Avenue de l'Observatoire 36, Paris ;
and

Alfred J. P. Shepherd, Esq., B.A., Queen's College, Oxford ;
were balloted for and duly elected Fellows of the Society.

The Astronomer Royal communicated to the Council a letter relating to the erection of a statue to Le Verrier, addressed to him by M. Fizeau, President of the Academy of Sciences, and of a committee formed for promoting that object. The fund is to be raised by voluntary subscriptions. The committee includes already the President, the Vice-Presidents, and a large number of the Members of the Academy. Letters may be addressed to the Secretariat of the Institute of France, where a register of subscriptions has been opened.

The Total Solar Eclipse of 1878, July 29.

The following Notice to intending observers of the Total Solar Eclipse of 1878, July 29, has been issued by the Superintendent of the United States Naval Observatory :—

It having been suggested that various men of science in Europe desire to observe this eclipse, and that it might be possible, in some cases, to obtain for them reduced rates of fare on the railway lines of the United States, the case was presented to the Pennsylvania Railroad Company, and the following arrangements for a reduced rate of fare to and from the East to Denver, Colorado (which is near the Central line), have been

B B

offered by the Company. It will be noticed that these arrangements refer only to persons coming in a private capacity, and not to members of expeditions sent out by foreign governments.

[Extract.]

PHILADELPHIA, *January 7, 1878.*

SAMUEL M. FELTON, *Philadelphia.*

DEAR SIR,—Your letter of the third ultimo, addressed to THOMAS A. SCOTT, President, with enclosure from Professor EDWARD S. HOLDEN, U. S. Naval Observatory, Washington, requesting reduced rates from the East to Denver, Colorado, and return, for such scientific gentlemen from Europe as may wish to observe the total solar eclipse of 1878, July 29, has been referred to me for attention, and, in reply, I beg to state that the Pennsylvania Railroad Company is anxious to afford all possible facilities to persons coming in a private capacity for this purpose.

Upon the order of the Superintendent of the U. S. Naval Observatory, Washington, I will furnish transportation to Denver and return *viâ* Pittsburg, Indianapolis, St. Louis, and Kansas City, or *viâ* Pittsburg, Chicago, and Omaha, at the following rates for the round trip: From New York, \$73.00; from Philadelphia, \$71.00; from Baltimore or Washington, \$69.50

L. P. FARMER,

General Passenger Agent.

The round trip ticket includes transportation (about 2,000 miles according to route) from New York to Denver and back again to point of starting; or in all 4,000 miles of travel.

These arrangements allow the journey to Denver to be made by one route and the return by another. The routes available are :—

No. 1. *Viâ* Pittsburg, Chicago, Omaha, Denver.

No. 2. *Viâ* Pittsburg, Chicago, Omaha, Denver.

No. 3. *Viâ* Pittsburg, Chicago, Omaha, Denver.

Different routes from Chicago to Omaha.

No. 4. *Viâ* Pittsburg, Chicago, Leavenworth, Denver.

No. 5. *Viâ* Pittsburg, Chicago, Atchison, Pueblo, Denver.

No. 6. *Viâ* Pittsburg, Indianapolis, St. Louis, Kansas City, Denver.

No. 7. *Viâ* Pittsburg, Indianapolis, St. Louis, Kansas City, Denver.

Different routes from St. Louis to Kansas City.

No. 8. *Viâ* Pittsburg, Indianapolis, St. Louis, Kansas City, Pueblo, Denver.

No. 9. *Viâ* Pittsburg, Indianapolis, St. Louis, Kansas City, Pueblo, Denver.

Different routes from Kansas City to Pueblo.

Persons intending to make observations of this eclipse, and desiring to take advantage of the courtesy extended by the Pennsylvania Railroad Company to foreign men of science (by which the ordinary cost of transportation is reduced one-half), will please notify by letter the Superintendent of the U. S. Naval Observatory of their intention, and request that a letter certifying to their identity be forwarded to their Consuls at the port they may select for arrival in the United States. This

letter must, upon delivery, be countersigned by the Consul of the applicant to prevent mistakes.

The Hon. Secretary of the Treasury has notified the collector of customs of the ports of Boston, Portland, New York, Philadelphia, and Baltimore of the probable arrival of European observers of this eclipse, who will be identified by exhibiting the above letter, so signed and countersigned, to the collectors named. Orders have been issued to them as follows:—

“Upon the arrival at your port of any of the gentlemen mentioned, you will extend all proper facilities for the speedy delivery to them of the professional instruments in question free of duty and charges.”

On presenting the same letter, so countersigned, to the agent of the Pennsylvania Railroad Company in New York, Philadelphia, Baltimore, or Washington, a round-trip ticket to Denver and return will be issued to them by the Railroad Company at the rates before named.

From Denver railroad lines extend to points likely to be chosen for observing stations.

JOHN RODGERS.

Rear Admiral, U. S. Navy, Superintendent.

U. S. NAVAL OBSERVATORY,
Washington, February 1878.

The Luminous Spot on Mercury in Transit.

By B. G. Jenkins, Esq.

The attention of the scientific world will be directed on the 6th of May next to an astronomical occurrence of more than ordinary importance—a May transit of the planet *Mercury*, which has not occurred since the year 1845, although three November transits have taken place within the last thirty years.

Within the last 170 years there have been thirteen transits, upon which some observations on the luminous appendages of the planet have been made; but to come nearer to our own time, within the last forty-five years there have been in all six—on May 5, 1832; November 7, 1835; May 8, 1845; November 8, 1848; November 11, 1861; and November 4, 1868. It will be observed that four of these occurred in November, and only two in May. This is important, because the planet is in two opposite points of its orbit in these months—in November being only about five days from perihelion, and in May about ten days from aphelion, in which position it will be on the 6th of May next.

As we have not had a May transit since 1845, when it was only partly visible in this country, and the previous one in 1832 was unsatisfactorily observed, on account of the unfavourable weather, the coming transit will be of more than ordinary

B B 2